



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: AE3007C1  
 UNIQUE ID NUMBER: 6AL023  
 COMBUSTOR: Type 1  
 ENGINE TYPE: MTF

BYPASS RATIO: 5.1  
 PRESSURE RATIO ( $\pi_{00}$ ): 16.6  
 RATED THRUST ( $F_{00}$ ) (kN): 31.5

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	14.3	66.8	41.1	1.2
AS % OF ORIGINAL LIMIT	72.7	56.6	56.2	3.6
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			70.2	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			71.4	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			71.9	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			76.4	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.322	0.24	0.87	17.90	1.0
CLIMB OUT	85	2.2	0.269	0.28	1.07	15.35	0.0
APPROACH	30	4.0	0.099	0.66	3.96	7.05	0.0
IDLE	7	26.0	0.042	4.84	26.04	3.37	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			138	344	1842	1175	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				11.0	58.6	37.4	1.0
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	
TEMPERATURE (K)	
ABS HUMIDITY (kg/kg)	

### FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	16-20

MANUFACTURER: Rolls-Royce Corporation  
 TEST ORGANIZATION: Rolls-Royce Corporation  
 TEST LOCATION: Indianapolis, Indiana  
 TEST DATES: 03/03/1994-19/04/1995

### REMARKS

- For effectivity see Rolls-Royce Notice to Operators No. AE3007A-076
- Results based of Rolls-Royce report EDR 15171B

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)